CLAIMS:

1. A miter saw comprising:

a base assembly defining a cutting zone and configured to support workpieces in the cutting zone;

a housing assembly coupled to the base assembly and selectively movable toward and away from the cutting zone;

a rotatable blade supported at least partially within the housing and configured to cut workpieces supported within the cutting zone, where the blade has an angular momentum when rotated; and

a braking system actuatable to stop the rotation of the blade, where the braking system is configured to transfer at least a portion of the angular momentum of the blade to the housing assembly.

2. The miter saw of claim 1, where the housing assembly includes a first portion coupled to the base assembly and a second portion pivotally coupled to the first portion.

3. The miter saw of claim 2, where the braking system is configured to transfer at least a portion of the angular momentum of the blade to the second portion of the housing assembly.

4. The miter saw of claim 2, where the second portion of the housing assembly is configured to pivot at least partially within the first portion of the housing assembly.

5. The miter saw of claim 2, where the braking system includes a cartridge removably mounted on the second portion of the housing assembly, and where the cartridge includes a braking member configured to engage the blade.

6. The miter saw of claim 1, where the braking system includes a cartridge removably mounted on the housing assembly, and where the cartridge includes a braking member configured to engage the blade.

7. The miter saw of claim 6, where the second portion of the housing assembly includes an exterior surface, and where the cartridge forms at least part of the exterior surface of the second portion of the housing assembly when the cartridge is mounted on the housing assembly.

8. A miter saw comprising:

a base assembly defining a cutting zone;

a circular blade supported by the base assembly;

a motor configured to rotate the blade;

a housing assembly coupled to the base assembly and configured to at least partially enclose the blade, where the housing assembly includes a blade guard movable between an extended position relatively proximal the cutting zone and a retracted position relatively distal the cutting zone; and

a reaction system configured to detect one or more dangerous conditions between a person and the blade, and to urge the blade guard toward the extended position in the event a dangerous condition is detected.

9. The miter saw of claim 8, where the reaction system includes a brake mechanism configured to stop rotation of the blade, and where at least a portion of the brake mechanism is coupled to the blade guard.

10. The miter saw of claim 9, where the brake mechanism includes a cartridge removably attached to the blade guard.

11. The miter saw of claim 10, where the blade guard includes an exterior surface, and where the cartridge forms a portion of the exterior surface of the blade guard when the cartridge is attached to the blade guard.

12. The miter saw of claim 10, where the brake mechanism includes at least one braking element configured to engage the blade, and where the braking element is coupled to the cartridge.

13. The miter saw of claim 9, where the blade has angular momentum when rotating, and where the brake mechanism includes at least one braking element configured to engage the blade and to transfer at least a portion of the angular momentum of the blade to the blade guard.

14. The miter saw of claim 8, where the blade guard is configured to move around the perimeter of the blade.

15. The miter saw of claim 8, further comprising a linkage assembly connecting the blade guard to the base assembly, and where the housing assembly is selectively movable toward and away from the cutting zone, and where the linkage assembly is configured to move the blade guard toward the extended position when the housing assembly is moved away from the base assembly.

16. The miter saw of claim 8, where the reaction system includes a detection system configured to detect accidental contact between a person and the blade.

17. A miter saw comprising:

a base assembly defining a cutting zone and configured to support workpieces in the cutting zone;

a housing assembly supported by the base assembly and selectively movable toward and away from the cutting zone, where the housing assembly includes at least one exterior surface;

a rotatable blade enclosed at least partially within the housing and configured to cut workpieces supported within the cutting zone;

a motor configured to rotate the blade; and

a brake mechanism configured to stop the rotation of the blade, where the brake mechanism includes a cartridge that is removably attachable to the housing assembly to form at least a portion of the at least one exterior surface.

18. The miter saw of claim 17, where the cartridge at least partially encloses one or more single-use components.

19. The miter saw of claim 17, where the housing assembly includes a first electrical connector, and where the cartridge includes a second electrical connector configured to operatively connect to the first electrical connector when the cartridge is attached to the housing assembly.

20. A miter saw comprising:

a base assembly defining a cutting zone and configured to support workpieces in the cutting zone;

a housing assembly coupled to the base assembly and selectively movable toward and away from the cutting zone;

a rotatable blade configured to cut workpieces supported within the cutting zone, where the blade is supported at least partially within the housing assembly, and where the blade has angular momentum when rotating; and

braking means for stopping rotation of the blade upon the occurrence of one or more dangerous conditions, the braking means including means for transferring at least a portion of the angular momentum of the blade to the housing assembly.